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FORMS OF INDUSTRIAL EDUCATION BEST ADAPTED TO CITY CHILDREN¹

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The traditional subjects of the school curriculum aim to train the child through exercises the perception basis of which is either visual or auditory, or both. The child's seeing and hearing alone condition all his learning within the scope of the time-honored subjects. But manual training aims at the development of the individual through the introduction of experiences based on other sense-perceptions than those of sight and hearing. Touch and muscular resistance are called into play because they furnish, independently and in conjunction with the other sense-avenues, experiences which react in the development of nervous centers and forces otherwise left practically impotent so far as the training of the schools is concerned. In deciding what forms of manual training are especially valuable for the child of any determined environment, certain governing principles must be kept clearly in mind.

1. This training must develop capacity which is a new, additional, positive contribution to the child's unconscious endeavor at self-realization, and the school's conscious endeavor to transform his possibilities into powers.

2. This training should furnish him experience which enlarges his capacity to adapt himself more easily and efficiently to his life-work and environment when school days are finished. He should begin to learn as a boy things he must do as a man.

3. This training should not neglect to furnish him some experiences lying entirely outside the field of his prospective life-activity, and especially some of that class of experiences which will enable him to understand and sympathize with the endeavor and aim of large groups of his fellow-men whose surroundings

¹ Address before the Department of Superintendence of the National Educational Association, Louisville, Ky., March 1, 1906.

and occupations are decidedly unlike his own. He should begin to get the view-point as a boy of a position he will not occupy as a man, but which will be occupied by thousands of his fellow-men with whom the good of the commonwealth and the nation demands that he shall have intelligent sympathy.

4. This training is the resultant of exercises in which the pupil is making high endeavors at self-expression. He is writing himself into the drawing or the model he constructs. His ideals of strength, utility, beauty, and honesty are modeled in the clay, cut and carved in the wood, bent and forged in the iron, braided and woven into the raffia and reeds which he manipulates.

With these principles in mind, and a recognition of the fact that the immediate direction of the manual-training work of the great majority of city children must be in the hands of the regular grade teacher, we may proceed to make some specific answers to the question: What forms of industrial training are best suited to the child of any determined environment?

Obedience to the first and fourth of these principles will eliminate some of the common forms of manual training frequently used as pedagogical soothing syrup, under the name of "busy work," in many primary schools. It will do away with much of the work on hard and fast models in which the pupil has little or no choice or initiative, and which admit of only a comparatively low order of self-expression.

So far as the life of any particular city or class of cities is distinctive, its conditions must guide us in applying the second and third principles, which chiefly determine the forms proposed for our discussion.

Recognition of the principle that in manual training and industrial education the pupil should be taught to know and do, as a boy, things which he will have to do as a man is now widespread. We have ceased to apologize for any special form of manual training having educational value, because it gives a boy the skill of a craft in which he may later earn his living. We are no longer ashamed to acknowledge that many of our pupils are taught in our schools the very art or arts whose exercise in the business world gives them their support. This con-

clusion is the only justification for the large place that cooking and sewing have long enjoyed in the schools of our most progressive cities. Call it trade-school work, if you will; but remember that all our girls must be trained for the vocation of homemaker, and be skilled either in practicing these two arts or in the direction, supervision, and training of others, in their exercise.

I may probably best indicate by illustration what I deem to be wise operation of the law that the special character of the business life of a city should affect the forms of industrial education in its schools. My own city (Hartford) is known throughout the business world as a banking, insurance, and manufacturing center. We employ thousands of clerks, accountants, copyists, bookkeepers, typists, and stenographers in these offices of our banks, insurance companies, and factories. The factories are devoted largely to the production of high-grade metal manufactures. Our guns and automobiles, our tires and bicycles, our typewriters and automatic machinery go into every quarter of the world where efficiency is prized. In their production we employ thousands of machinists, pattern-makers, draftsmen, smiths, and other high-grade mechanics. The ranks of all these must be annually recruited from the boys trained in our public schools.

We recognize, accordingly, that penmanship has in our schools a place which it is not generally accorded or entitled to in many other cities. We deliberately teach it as an important manual art all through the nine grades of the grammar schools and in the high school as well. Similarly, work in wood and iron is begun as low as the fifth grade of the grammar schools and carried through the high school. Drawing and designing begin in the kindergarten and are available through every year to the end of the high-school course. Typewriting, stenography, and book-keeping are taught in our high school. Our work in pattern-making, mechanical drawing, and machine-shop practice is more extended than might be justified in a city of different commercial life. Our evening high school has not hesitated to undertake the training in its shops and drafting-rooms of ambitious young men from the factories. Without conscious formulation of the

doctrine that the schools of the community should teach whatever the business of the community demands in a large way, we have accepted it in our practice.

Because of recognition of the principle that every man's vocation, as well as his location, puts limitations upon his life and thought, we have always deemed it necessary to teach pupils many things in history, literature, and language largely for the purpose of enabling them to understand people far removed from them in time or territory. We know the moral value of the suggestion, "Put yourself in his place;" but we have not fully learned that due appreciation of the dignity of manual labor, and its possible intelligence and self-respect, cannot be gained without doing this in some practical way. No amount of reading and study will do this for most of us as efficiently as a little experience with the life-work of the class we would understand. How else can we account for the general attitude of the public toward manual and industrial education? We hear enough of its virtue, we read enough of the value of its contribution to the efficiency of the social and political life. But so long as only the neglected negro, the abused Indian, and the inmates of our reformatories and penitentiaries are made its chief beneficiaries, how can we avoid the conclusion that it is not truly understood?

Now, no one will deny that it is highly important that the city boy, who as a man is to live in the city, help form public opinion of the city, and express that in his vote, should have a sympathetic interest in the work of the farmer, the horticulturist, and the gardener. The good of the commonwealth demands it. In my own state the gravest hindrance to progress in helpful legislation for both city and country is mutual misunderstanding of the city view-point and the country view-point. We in the city think the shortcoming and the duty of our farmer fellow-citizen are manifest; but it is not our duty to give our children, not only tuition, but also industrial experience that shall make it easier for them to co-operate more intelligently and sympathetically with the great agricultural class?

And not alone in manufacturing states like Connecticut, but indeed throughout the Union, the city children need this opportu-

ity to gain at least an elementary acquaintance with the life-endeavor of the great farming class. The best place to train our city boys and girls to this open-eyed and open-hearted co-operation with the millions of their farmer fellow-citizens is in the school garden. The school garden as an institution has, of course, large value as a nature-study laboratory: It may also prove a solution of the vexed problem lying between too many hours in school and too many hours on the street. But its chief value lies in the fact that it gives through its experience the moral and intellectual sympathy which I have urged is so needed in the civic and political life.

It may be urged that the garden on any adequate scale is not available in the city. It is not and will not be in the city on the day in which we do not insist on the minimum land interests of children. No man would undertake to rear a score of good Kentucky colts without ample grounds in which they might get their play and their training. To limit these would be to insure failure with the noblest quadruped the world has produced. But dozens of communities are essaying to rear a thousand American boys and train them on a school site but little larger than the building—a school site covered with a brick house, a concrete walk, and the grave of man-making play, above which rises the mournful epitaph, "Keep off the grass." Have we not reached the time when we know that blooming girls and bouncing boys are worth more than springing grass and budding bush? Whenever and wherever the physical rights of our youth are properly understood by the managers of our schools, we can trust the solution of the land question to the American father whose prayer today is still that of the Grecian hero before the walls of Troy: "May this, my son, be greater than his father."

Again let me illustrate by the example with which I came to be most familiar, and which involved all the type difficulties besetting the development of a city school garden. The Wadsworth Street School—the central school of the system for which I am responsible—is situated in the heart of a thickly populated district of our city. To it eighteen hundred boys and girls went daily. The unoccupied portions of the site were barely ade-

quate to the play purposes of the school. The proper appeal to the school committee in the name of the open-air rights of the children resulted in the purchase of the needed land contiguous to the school site. All was uninclosed, and to the committee it seemed desirable to keep open to the public certain walks through the property by which thousands of citizens daily traveled to and from their homes. The land secured was enough to furnish garden opportunity for from three to four hundred children in one year. It seemed desirable to them to give the garden opportunity to the children of the youngest grades. The first year the gardens were given up exclusively to the children of six kindergartens, under the leadership of an enthusiastic kindergarten supervisor of limitless industry. Nearly all of the kindergartners and the great mass of their children caught the spirit of the work, and the gardens were a great success. The boys and girls of the neighborhood, without any invitation, took on themselves, out of school hours and during vacation, the duty of protecting them from trespassers and marauders. Remember that the whole tract was unfenced, and that from 5 P. M. to 6 A. M. no teacher or school official, not even a janitor, was on the premises. The morals of young and old in the neighborhood were equal to withstanding all, or nearly all, temptation. Remember, too, that there were scores of children living within a few blocks of this garden who were pupils in private schools, and had possibly never attended public schools. Bear in mind, further, that there was no special police protection given to this block more than to any others in the vicinity. When the watermelons approached maturity, and before the frost was on the pumpkins, the watering of some juvenile mouths and the longing for Jack-o'-lanterns became too powerful, and we lost a good portion of these two crops. Otherwise flowers and vegetables were practically unmolested.

The next season four first primary grades were added to the garden squad. Their teachers brought added enthusiasm, energy, and thoughtful consideration to the managing and directing forces. We were fortunate in having in these departments teachers able to take up new problems intelligently, and

ready to follow them up persistently. The gardens were now a pronounced success. The work was practically all done by the children and their teachers. The highly efficient teacher or kindergartner could be picked out as readily in the garden as in the school. We had answered the question: Are the school hours too long for the primary children? Too long always for the wrong kind of work; never too long in the school that has the intelligence to recognize, the courage to stand for, and the freedom to serve the true interests of the growing child.

Other cities of varying industrial life and environment may furnish varying specifications in their answer to the question we have discussed. The principles which we have endeavored to enunciate must, however, be followed by all. The best forms of industrial education for the children of any given city must result in the development of power not adequately developed in the traditional curriculum, must train for industrial efficiency in the city, and must give sympathetic understanding and respect for the life-work of the millions in the country.